

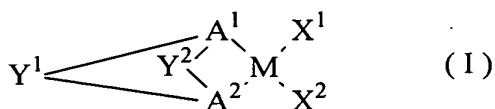
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AMENDMENTS TO THE CLAIMS

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1. – 10. (Cancelled)

B1 11. (Currently Amended) A method for producing an  $\alpha$ -olefin/aromatic vinyl compound copolymer, comprising copolymerizing an  $\alpha$ -olefin and an aromatic vinyl compound in the presence of a copolymerization catalyst comprising a transition metal compound component (A) and a co-catalyst component (B), wherein the component (A) is represented by the following Formula I:



wherein each of  $\text{A}^1$  and  $\text{A}^2$  represents a cyclopentadienyl group, ~~a substituted cyclopentadienyl group, or an indenyl group, or a substituted indenyl group~~ each being optionally substituted by a substituent selected from the group consisting of a monovalent hydrocarbon group, a halogen atom, an alkoxy group, a silicon-containing monovalent hydrocarbon group, a phosphorus-containing monovalent hydrocarbon group, a nitrogen-containing monovalent hydrocarbon group, and a boron-containing monovalent hydrocarbon group; each of  $\text{Y}^1$  and  $\text{Y}^2$  represents a substituted or unsubstituted alkylene group, a substituted or unsubstituted silylene group, or a germanium-containing group, at least one of  $\text{Y}^1$  and  $\text{Y}^2$  being a substituted or unsubstituted alkylene group; M represents titanium, zirconium, or hafnium; and each of  $\text{X}^1$  and  $\text{X}^2$  represents a hydrogen atom, a halogen atom, an alkyl group, an aryl group, an arylalkyl group, an alkylaryl group, an alkoxy group, an aryloxy group, a silicon-containing group, or a sulfur-containing group.

B1  
12. (Previously Presented) The method according to Claim 11, wherein a cyclic olefin and/or a diene is further copolymerized with the  $\alpha$ -olefin and the aromatic vinyl compound.

13. (Previously Presented) The method according to Claim 11, wherein  $Y^1$  and  $Y^2$  are different from each other.

14. (Previously Presented) The method according to Claim 11, wherein the copolymerization catalyst further comprises an alkylating agent (C).

15. (Previously Presented) The method according to Claim 11, wherein the copolymerization is performed in the presence of an additional chain-transfer agent.

16. (Previously Presented) The method according to Claim 11, wherein the aromatic vinyl compound is styrene.

17. (New) The method according to Claim 11, wherein each of  $A^1$  and  $A^2$  represents an indenyl group that may be substituted by a monovalent hydrocarbon group.

18. (New) The method according to Claim 11, wherein one of  $Y^1$  and  $Y^2$  represents a substituted or unsubstituted alkylene group and the other represents a substituted or unsubstituted silylene group.

19. (New) The method according to Claim 11, wherein each of  $Y^1$  and  $Y^2$  represents a substituted or unsubstituted alkylene group.

SUPPORT FOR THE AMENDMENT

Claim 11 has been amended.

Claims 17-19 have been added.

The amendment of Claim 11 is supported by Claim 11 as previously pending and the specification as originally filed at page 6. New Claims 17-19 are supported by the Examples of the present specification.

No new matter is believed to have been added by the present amendment.